

The Latin American department-store operator says it learned valuable lessons from its first item-level pilot, yielding an inventory accuracy of 98.4 percent and a 25 percent reduction in out-of-stocks.

By Mary Catherine O'Connor

Aug. 29, 2007—[Falabella](#), one of the largest department-store chains in Latin America, has completed a pilot project investigating how using RFID might improve its tracking of products at the item level, and is looking forward to a second item-level pilot. Cristian Astaburuaga, Falabella's RFID project team leader, presented findings from the project at the [RFID Journal—AAFA Apparel & Footwear Summit](#), held last week in New York City.

Astaburuaga told attendees that the first pilot—which took place during a six-month period at one of the chain's 56 stores—reached its overall goals, which included enabling staff to perform daily inventory counts of tagged items and achieving a tag-read accuracy of more than 98 percent. In addition, he said, the test provided several important lessons regarding the proper execution of an RFID pilot.



Cristian Astaburuaga

The project centered on the tagging and tracking of two private-label apparel brands sold in-store. A total of 7,000 items were tagged at the point of manufacture in Asia, using hangtags containing pre-encoded EPC UHF Gen 2 inlays. An additional 2,500 items, already in the store, were also tagged. The trial involved four main business processes: receiving shipments, passing goods from the back room to the sales floor, conducting a daily inventory of goods on the sales floor and measuring the level of shrinkage.

Read zones established at the store's receiving dock, as well as around the doorway between the back room and sales floor, collected tag data as items passed through both areas. A mobile interrogator, built into a customized cart, was employed to perform daily inventory counts of tagged items on the sales floor. On the cart, the reader's antennas were positioned to maximize the interrogation zone, ensuring that tags attached to the tightly packed clothing items hanging from displays or in folded stacks on shelves could be read. When items were purchased, their hangtags were removed and collected so the store could determine how many tagged items were lost to theft. The retailer accomplished this by comparing the tag EPCs of sold merchandise with those of items still on the premises.

According to Astaburuaga, the pilot showed that using RFID resulted in 98.4 percent inventory accuracy and enabled staff to count up to 9,000 items in one hour, using the mobile cart. During the trial, he noted, the store saw a 25 percent reduction in out-of-stock occurrences among the tagged items.

There was, however, a discrepancy between the inventory accuracy rate and the RFID read rate that highlighted an important lesson around tagging, he said. For those items with functional tags, the rate of

successful reads was 99.7 percent. But because a few RFID inlays were faulty or encoded with incorrect data, and because some hangtags fell off due to being insecurely attached, the inventory accuracy was only 98.4 percent. "The tagged products were more visible during inventory," Astaburuaga explained, "but tags falling off items was a big problem."

IBM developed the project, Astaburuaga noted, and served as its lead implementer. The pilot employed RFID interrogators from [Motorola](#), RFID hangtags supplied by [Avery Dennison's Paxar division](#) and [OATSystem](#)' Foundation Suite middleware platform.

The middleware controlled the hardware and generated reports based on the tag data. Store staff members used handheld computers to view the restocking reports, which detailed how many of each tagged item were needed on the sales floor to reach optimal floor stock levels.

Astaburuaga said Falabella would now like to begin a second RFID pilot, collaborating with local suppliers of the goods it sells. This trial would involve the tracking of a larger pool of items and include the reading of tags as the goods pass through Falabella's distribution centers. The second pilot, he said, would also include a number of the company's department stores.

Eventually, Astaburuaga said, the company aims to integrate the data collected through RFID tag-read events into existing information systems in the store's back-end operations. This, he stated, will help it achieve additional benefits from the technology that will go beyond what it could provide as a standalone system.